



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/272,471	03/19/1999	PETAR RISTANOVIC	98-P-7523-US	5690

7590 02/03/2005

SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
186 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER

BORISSOV, IGOR N

ART UNIT	PAPER NUMBER
----------	--------------

3629

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/272,471

Applicant(s)

RISTANOVIC ET AL.

Examiner

Igor Borissov

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 2, 7-9, 12, 16 and 19 are rejected under 35 U.S.C. 112**, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**As per claims 2 and 12**, the phrase "under *none* and *each one* of the contingency condition" is confusing. The term "*none*" implies no contingency condition at all, while the term "*each one*" implies all contingency conditions, which is in contradiction to the term "*none*".

**As per claims 7-9 and 16**, they are rejected as being dependent on said rejected claims.

**As per claim 19**, the phrase "units *for* selected for operation" is confusing.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3-5, 10, 11, 13, 15, 17 and 19-20 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Johnson et al. (US 6,047,274) (Johnson).

Johnson teaches a system for energy supply bidding, comprising:

#### **Independent claims**

**As per claims 1,**

Art Unit: 3629

the Moderator computer (1) (Figs. 1) (*a market user interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

an energy delivery scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system (C.12, L. 26-30; C. 15, L. 32-40); wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55).

Johnson does not specifically teach that said energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), *said rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

**As per claims 10,**

the Moderator computer (1) (Figs. 1) (*a market interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

an energy delivery (*energy transmission rights*) scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system (C.12, L. 26-30;

Art Unit: 3629

C. 15, L. 32-40); wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55).

Johnson does not specifically teach that said energy delivery (*energy transmission rights*) scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said energy delivery (*energy transmission rights*) scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

**As per claim 17,**

the Moderator computer (1) (Figs. 1) (*a market interface*) for exchanging market information between energy providers (bidders) and end users (Fig. 15, items 36 and 37; C. 19, L. 54-63; C. 20, L. 34-37);

an energy delivery scheduling system for scheduling generation and delivery of energy from a selected (winner) energy provider to the end users in accordance with the submitted offers (market information) and in accordance with information relating to the energy generation and delivery system (C. 12, L. 26-30; C. 15, L. 32-40); wherein the selected (winner) energy provider is responsible to schedule the delivery of energy (C. 15, L. 53-55).

Furthermore, Johnson teaches that the rules of the bidding process specify a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37).

Johnson does not specifically teach that said energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system.

However, Johnson does teach that said *scheduling* of the power to be delivered by the selected (winner) energy provider to the end users *is defined by the rules of the bidding process* (C. 12, L. 5-7, 26-30), said *rules being established by the Moderator computer* (C. 11, L. 13-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson to include that said energy delivery scheduling system is an energy scheduling *subsystem* of said energy supply bidding system, because it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

Furthermore, Johnson teaches:

**Dependent Claims**

**As per claim 3**, said system, wherein the scheduling and delivery of energy generation is conducted at least one of a day in advance and an hour in advance (C. 4, L. 32-33, 59-61).

**As per claim 4**, said system, wherein market information is transmitted between the Moderator computer (*a market user interface*) and market participants over a data communication network (C. 7, L. 54 – C. 8, L. 7; C. 13, L. 50).

**As per claim 5**, said system, wherein said market information includes demand for energy delivery (C. 14, L. 51-63) and availability of energy generation (C. 14, L. 64 – C. 15, L. 5).

**As per claim 11**, said system, wherein:

a provider adjusts his bid based on the market information (*a case setup function*) (C. 13, L. 42-47);

the Moderator computer evaluates (*a feasibility test function*) submitted bids from energy providers to determine the best deal for the end user in accordance with information relating to the energy generation and delivery system (C. 14, L. 39-51);

Art Unit: 3629

the winning bidder is selected, and, subsequently, a selection notification is transmitted to the selected energy provider providing the auction results to the market participants (*the post-processing function*) (C. 12, L. 20-24).

**As per claim 13**, said system, wherein market information is transmitted between the Moderator computer (*a market user interface*) and market participants over a data communication network (C. 7, L. 54 – C. 8, L. 7; C. 13, L. 50).

**As per claim 15**, said system, wherein charges for the energy transmission rights are determined (*the energy rights pricing function*) based on transmission fees and retail wheeling fee (C.12, L. 55 – C. 13, L. 13). Information as to *fixed* transmission rights is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI. The structural elements of the Johnson's system would remain the same regardless if the transmission rights are *fixed* transmission rights, or not.

**As per claim 20**, said system, configured to determine price of energy, said price including location pricing (C.12, L. 55 – C. 13, L. 13).

**Dependent claims 2, 6-9, 12, 14, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Takriti (US 6,021,402).**

**As per claim 2**, Johnson teaches said system, including:

an energy delivery *commitment function* for specifying winning bidders for generating and delivery of blocks of power, and for stimulating or discouraging additional volume and delivery commitments (C. 13, L. 42-47; C. 14, L. 55-61);

bidding process rules (*security analysis function*) for specifying a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37);

Art Unit: 3629

a power generation *optimizing function* for optimizing generation of production capacity and/or energy provisioning activities based on feedbacks from the Moderator computer (C. 16, L. 53-56).

Johnson does not specifically teach that said energy delivery commitment function includes *a unit commitment function for selecting energy generators*; and that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*.

Takriti teaches a risk management system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities and the stochastic load on the system (C. 4, L. 59-61), said system including a modeling means for said energy generation and delivery (C. 5, L. 7-8), said modeling means including:

a unit commitment function for selecting energy generators (C. 19, L. 51; C. 20, L. 19-20);

a system reliability (security) function for modeling energy generation and delivery under certain circumstances (C. 7, L. 20-33) or *contingency conditions* (solving the unit commitment function) (C. 19, L. 50-51);

a function for optimally allocating the electric load between different generating units (*configuration*) at each time period and under each scenario (*optimal power flow function*) so as to operate in reliable (secure) fashion, assuming solving the unit commitment function (*contingency condition*) (C. 19, L. 47-51), and considering physical properties of the generating units (C. 7, L. 20-33) and status of the generating units (C. 5, L. 9-10).

It would have been obvious to one having ordinary skill in art the time the invention was made to modify Johnson to include, that said energy delivery commitment function includes *a unit commitment function for selecting energy generators*; and that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*, as disclosed in Takriti, because it would advantageously allow to determine an operating schedule for generating units so that meets the load at a minimum cost, as specifically stated in Takriti (C. 3, L. 17-18).



**As per claim 6**, Tektite teaches said system, including a modeling means for modeling said energy generation and delivery (C. 5, L. 7-8). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 7**, Tektite teaches said system, wherein the unit commitment function selects energy generating units for operation in each hour of each day of each time period during each scenario (C. 20, L. 19-22; C. 14, L. 27, 51-54). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 8**, Johnson teaches said system, configured to determine price of energy, said price including location pricing (C.12, L. 55 – C. 13, L. 13).

**As per claim 9**, Takriti teaches said risk management system for electric utilities, wherein ramping rates are considered in optimization of scheduling of the generating units (C. 19, L. 45-54). The motivation to combine Johnson with Takriti would be to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 12**, Johnson teaches said system, wherein:

the bidding process rules specify a (*contingency*) condition that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (*security analysis function*) (C. 15, L. 29, 34-37);

optimization of generating or production capacity and/or energy provisioning activities is conducted (*an optimal power flow function*) based on feedbacks from the Moderator computer (C. 16, L. 53-56), and

charges for the energy transmission rights are determined (*the energy rights pricing function*) based on transmission fees and retail wheeling fee (C.12, L. 55 – C. 13, L. 13).

Johnson does not specifically teach that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*.

Art Unit: 3629

Takriti teaches a risk management system for scheduling the generating units of electric utility while taking into consideration power trading with other utilities and the stochastic load on the system (C. 4, L. 59-61), said system including a modeling means for said energy generation and delivery (C. 5, L. 7-8), said modeling means including:

a system reliability (security) function for modeling energy generation and delivery under certain circumstances (C. 7, L. 20-33) or *contingency conditions* (solving the unit commitment function) (C. 19, L. 50-51); and

a function for optimally allocating the electric load between different generating units (*configuration*) at each time period and under each scenario (*optimal power flow function*) so as to operate in reliable (secure) fashion, assuming solving the unit commitment function (*contingency condition*) (C. 19, L. 47-51), and considering physical properties of the generating units (C. 7, L. 20-33) and status of the generating units (C. 5, L. 9-10).

It would have been obvious to one having ordinary skill in art the time the invention was made to modify Johnson to include that said optimizing generation of production capacity and/or energy provisioning activities includes *determining a configuration of the energy generation system*, as disclosed in Takriti, because it would advantageously allow to determine an operating schedule for generating units so that meets the load at a minimum cost, as specifically stated in Takriti (C. 3, L. 17-18).

**As per claim 14**, Takriti teaches said system, including a modeling means for modeling said energy generation and delivery (C. 5, L. 7-8). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 16**, Takriti teaches said system, wherein said optimization of energy generation and delivery is conducted under certain circumstances (C. 7, L. 20-33) or contingency conditions (solving the unit commitment function) (C. 19, L. 50-51) to provide reliability (security constrained) of system operation. The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 18**, Takriti teaches said system, including a modeling means for modeling said energy generation and delivery (C. 5, L. 7-8). The motivation to combine Johnson with Takriti would be to advantageously allow to optimize operating schedule for generating units so that meets the load at a minimum cost.

**As per claim 19**, Takriti teaches said system, further including a unit commitment function for selecting energy generators (C. 19, L. 51; C. 20, L. 19-20).

### ***Response to Arguments***

Applicant's arguments filed on 6/18/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that Johnson fails to disclose a subsystem for scheduling energy delivery, the examiner maintains that Johnson teaches that the Moderator computer establishes rules defining scheduling of the power to be delivered by the selected energy provider (winner) to the end users (C. 12, L. 5-7, 26-30), (C. 11, L. 13-14), wherein the selected energy provider will be responsible to schedule the delivery of its power (C. 15, L. 53-58), thereby obviously disclosing energy delivery scheduling functionality. The motivation to modify Johnson's system to include said energy delivery scheduling functionality as a subsystem would be to advantageously allow to integrate all system's functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost.

In response to applicant's argument that Johnson fails to disclose *scheduling generation of energy*, the examiner points out that Johnson does, in fact, teach this feature. Specifically, Johnson teaches that the Moderator will establish rules specifying that the supply of electric power must be controlled at the point of generation (C. 11, L. 22-23). Furthermore, Johnson teaches: each provider of electric power manages its power generation (C. 7, L. 30-31); and if a provider is selected as the winning bidder,

Art Unit: 3629

the provider will be responsible to schedule the delivery of its power ... between the provider's point of generation and the grid interface of the user's local power distribution company (C. 15, L. 53-58).

***Conclusion***

Any inquiry concerning this communication should be directed to Igor Borissov at telephone number (703) 305-4649.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Weiss, can be reached at (703) 308- 2702.

Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks***

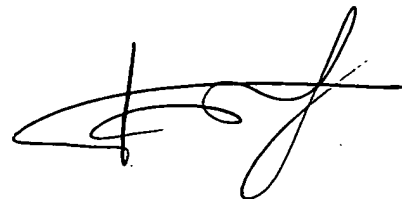
***Washington D.C. 20231***

or faxed to:

**(703) 872-9306** [Official communications; including After Final  
communications labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7<sup>th</sup> floor receptionist.

Igor Borissov  
Patent Examiner  
Art Unit 3629



IB

2/01/2005